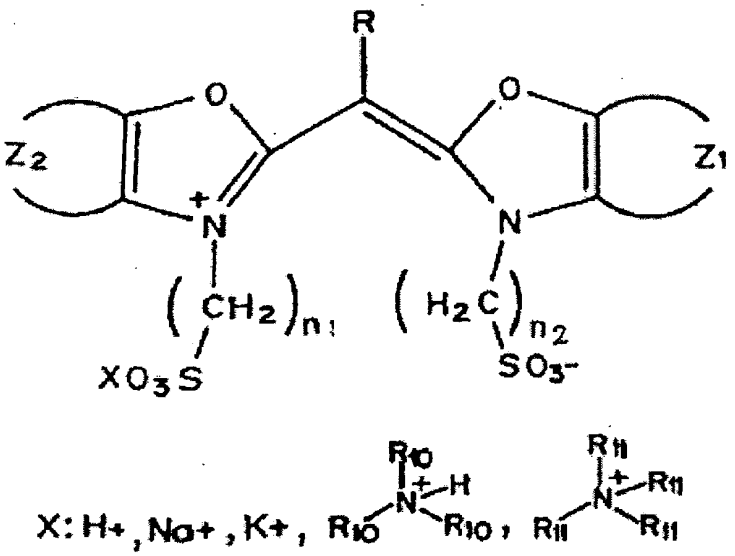
WHAT IS CALIMED IS

1. A monomethine dye compound represented by the following general formula (A):

General formula (A)

General Formula (A)

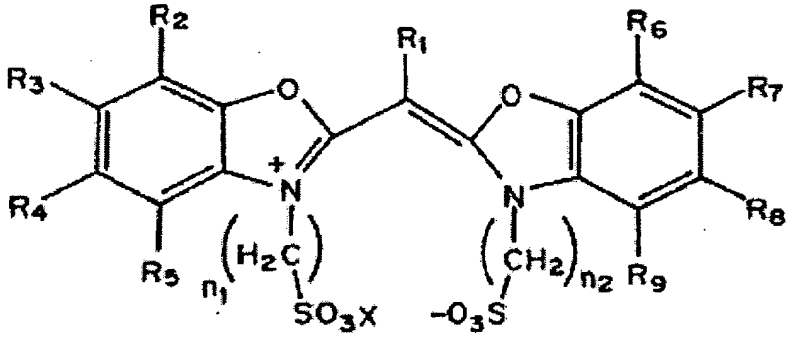


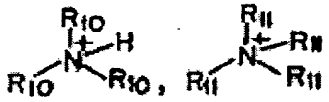
(wherein Z_1 and Z_2 may be the same or different and are individually a group of atoms which are required for forming a five-membered or six-membered aromatic ring or nitrogen-containing heterocycle, Z_1 and Z_2 optionally having a substituent group; R is hydrogen atom, halogen, aliphatic group, aromatic group or heterocyclic group; R_{10} and R_{11} may be the same or different and are individually methyl, ethyl, propyl, butyl, pentyl or hexyl group; and n_1 and n_2 may be the same or different and are individually the number of carbon atom in the alkyl chain, i.e. an integer of 1-20).

2. A monomethine dye compound represented by the following general formula (B):

General formula (B)

General Forumula (B)



X: H^+, Na^+, K^+, 

(wherein R_1 to R_9 may be the same or different and are individually hydrogen atom, halogen, aliphatic group, aromatic group or heterocyclic group; R_{10} and R_{11} may be the same or different and are individually methyl, ethyl, propyl, butyl, pentyl or hexyl group; and n_1 and n_2 may be the same or different and are individually the number of carbon atom in the alkyl chain, i.e. an integer of 1-20).

3. The monomethine dye compound according to claim 2, wherein at least one of groups R_2 to R_9 in the general formula (B) is constituted by Cl atom.

4. The monomethine dye compound according to any one of claims 1 to 3, which is adapted to be employed in an optical recording layer of the optical information recording medium, which is designed to record information by means of laser beam having a wavelength ranging from 350 to 500nm.

5. The monomethine dye compound according to any one of

claims 1 to 4, which is enabled to be formed into a J-association.

6. The monomethine dye compound according to any one of claims 1 to 5, wherein a counter ion X thereof is constituted by an ammonium compound.

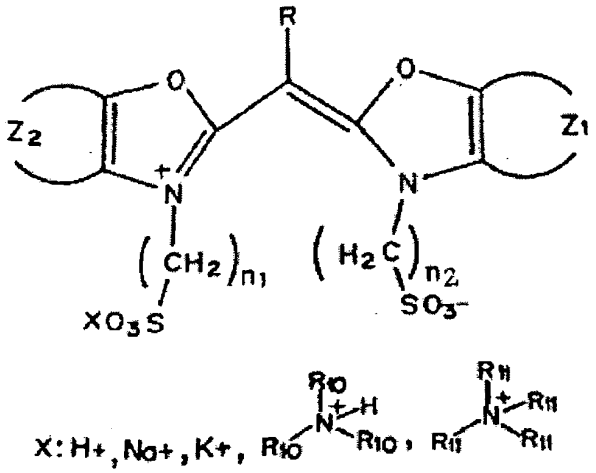
7. An optical information recording medium comprising an optical recording layer for recording information by making use of a laser beam, which is featured in that the optical recording layer comprises a dye film forming a J-association membrane and that the optical recording layer is directly deposited on the rear side of a layer for enabling the laser beam to transmit therethrough.

8. The optical information recording medium according to claim 7, wherein the optical recording layer is formed of a dye membrane containing a monomethine dye compound which is capable of forming a J-association body.

9. The optical information recording medium according to claim 8, wherein the optical recording layer contains a monomethine dye compound represented by the following general formula (A):

General formula (A)

General Formula (A)



(wherein Z_1 and Z_2 may be the same or different and are individually a group of atoms which are required for forming a five-membered or six-membered aromatic ring or nitrogen-containing heterocycle, Z_1 and Z_2 optionally having a substituent group; R is hydrogen atom, halogen, aliphatic group, aromatic group or heterocyclic group; R_{10} and R_{11} may be the same or different and are individually methyl, ethyl, propyl, butyl, pentyl or hexyl group; and n_1 and n_2 may be the same or different and are individually the number of carbon atom in the alkyl chain, i.e. an integer of 1-20).

10. The optical information recording medium according to any one of claims 7 to 9, wherein the laser beam has a wavelength region ranging from 350 to 500nm.

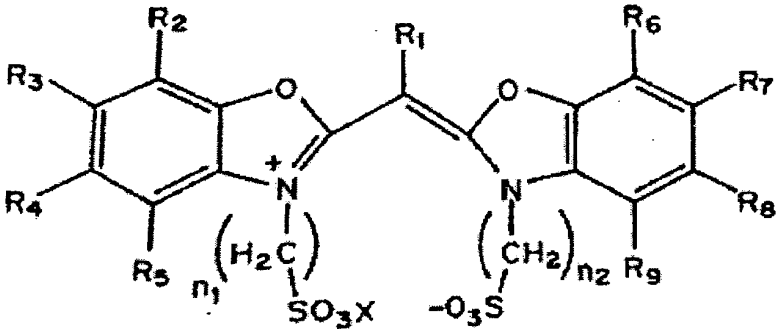
11. The optical information recording medium according to any one of claims 7 to 10, wherein the optical recording layer is a dye membrane formed of a mixture containing a monomethine dye compound.

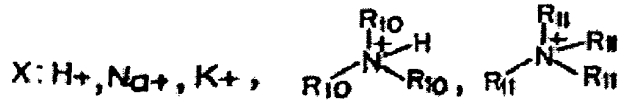
12. The optical information recording medium according to any one of claims 9 to 11, wherein the monomethine dye compound includes, as a counter ion X, an ammonium compound.

13. A method of manufacturing an optical information recording medium comprising an optical recording layer for recording information by making use of a laser beam, wherein the optical recording layer is formed by coating a monomethine dye compound represented by the following general formula (A) by means of a spin-coating method:

General formula (A)

General Formula (A)





(wherein Z_1 and Z_2 may be the same or different and are individually a group of atoms which are required for forming a five-membered or six-membered aromatic ring or nitrogen-containing heterocycle, Z_1 and Z_2 optionally having a substituent group; R is hydrogen atom, halogen, aliphatic group, aromatic group or heterocyclic group; R_{10} and R_{11} may be the same or different and are individually methyl, ethyl, propyl, butyl, pentyl or hexyl group; and n_1 and n_2 may be the same or different and are individually the number of carbon atom in the alkyl chain, i.e. an integer of 1-20).

14. The method of manufacturing an optical information recording medium according to claim 13, wherein the monomethine

dye compound is capable of forming a J-association body.

15. The method of manufacturing an optical information recording medium according to claim 13 or 14, wherein the monomethine dye compound includes, as a counter ion X, an ammonium compound.

16. The method of manufacturing an optical information recording medium according to any one of claims 13 to 15, wherein fluorinated alcohol such as 2,2,3,3-tetrafluoro-1-propanol is employed as a solvent for dissolving the monomethine dye compound.

17. The method of manufacturing an optical information recording medium according to any one of claims 13 to 16, wherein the solvent for dissolving the monomethine dye compound is mixed with water.

18. The method of manufacturing an optical information recording medium according to claim 17, wherein the mixing ratio of water to the solvent is confined within the range of 5 to 50% by volume.